



DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2021-0725; Project Identifier MCAI-2020-01402-T]

RIN 2120-AA64

Airworthiness Directives; Bombardier, Inc., Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: The FAA proposes to supersede Airworthiness Directive

(AD) 2017-22-06, which applies to certain Bombardier, Inc., Model CL-600-2B16 (601-3A, 601-3R, and 604 Variants) airplanes. AD 2017-22-06 requires repetitive inspections for fuel leakage at the engine and auxiliary power unit (APU) fuel pumps, and related investigative and corrective actions if necessary. Since the FAA issued AD 2017-22-06, terminating actions have been developed and additional airplanes have been determined to be affected by the unsafe condition. This proposed AD would retain the requirements of AD 2017-22-06, and require an inspection of the APU, repair if necessary, and modification of the engine electrical fuel pump (EFP) installation. This proposed AD would also add airplanes to the applicability. The FAA is proposing this AD to address the unsafe condition on these products.

DATES: The FAA must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <https://www.regulations.gov>. Follow the instructions for submitting comments.

- Fax: 202-493-2251.

- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this NPRM, contact Bombardier, Inc., 200 Côte-Vertu Road West, Dorval, Québec H4S 2A3, Canada; North America toll-free telephone 1-866-538-1247 or direct-dial telephone 1-514-855-2999; email ac.yul@aero.bombardier.com; Internet <https://www.bombardier.com>. You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

Examining the AD Docket

You may examine the AD docket on the Internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2021-0725; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this NPRM, any comments received, and other information. The street address for Docket Operations is listed above.

FOR FURTHER INFORMATION CONTACT: Steven Dzierzynski, Aerospace Engineer, Avionics and Electrical Systems Section, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7367; fax 516-794-5531; email 9-avs-nyaco-cos@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

The FAA invites you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under ADDRESSES. Include “Docket No. FAA-2021-0725; Project Identifier MCAI-2020-01402-T” at the beginning of your comments. The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. The FAA will consider all comments received by the closing date and may amend the proposal because of those comments.

Except for Confidential Business Information (CBI) as described in the following paragraph, and other information as described in 14 CFR 11.35, the FAA will post all comments received, without change, to <https://www.regulations.gov>, including any personal information you provide. The agency will also post a report summarizing each substantive verbal contact received about this proposed AD.

Confidential Business Information

CBI is commercial or financial information that is both customarily and actually treated as private by its owner. Under the Freedom of Information Act (FOIA) (5 U.S.C. 552), CBI is exempt from public disclosure. If your comments responsive to this NPRM contain commercial or financial information that is customarily treated as private, that you actually treat as private, and that is relevant or responsive to this NPRM, it is important that you clearly designate the submitted comments as CBI. Please mark each page of your submission containing CBI as “PROPIN.” The FAA will treat such marked submissions as confidential under the FOIA, and they will not be placed in the public docket of this NPRM. Submissions containing CBI should be sent to Steven Dzierzynski, Aerospace Engineer, Avionics and Electrical Systems Section, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7367; fax 516-794-5531; email 9-avs-nyaco-cos@faa.gov. Any commentary

that the FAA receives which is not specifically designated as CBI will be placed in the public docket for this rulemaking.

Background

The FAA issued AD 2017-22-06, Amendment 39-19086 (82 FR 49498, October 26, 2017) (AD 2017-22-06), for certain Bombardier, Inc., Model CL-600-2B16 (601-3A, 601-3R, and 604 Variants) airplanes. AD 2017-22-06 requires repetitive inspections for fuel leakage at the engine and APU fuel pumps, and related investigative and corrective actions if necessary. AD 2017-22-06 resulted from reports of fuel leaks in the engine and APU EFP cartridge/canister electrical connectors and conduits. The FAA issued AD 2017-22-06 to address fuel leaks in certain fuel pumps to remove a potential fuel ignition hazard. FAA AD 2017-22-06 corresponds to AD CF-2016-32R1, dated October 12, 2016, issued by Transport Canada Civil Aviation (TCCA), which is the aviation authority for Canada.

Actions Since AD 2017-22-06 was Issued

The preamble to AD 2017-22-06 explains that the FAA considered the requirements “interim action” and was considering further rulemaking. The FAA has now determined that further rulemaking is indeed necessary, and this proposed AD follows from that determination.

Since the FAA issued AD 2017-22-06, a general visual inspection of the APU and a modification of the engine EFP installation have been developed to address the root cause of the fuel leaks and provide terminating action for the repetitive general visual inspections and rectifications of fuel leaks from the engine and APU EFP electrical wiring conduit outlets. In addition, it was determined that additional airplanes are affected by the unsafe condition.

TCCA has issued TCCA AD CF-2016-32R4, dated October 13, 2020 (TCCA AD CF-2016-32R4); and TCCA AD CF-2020-38, dated October 13, 2020 (TCCA AD

CF-2020-38); to correct an unsafe condition for certain Bombardier, Inc., Model CL-600-2B16 (601-3A, 601-3R, and 604 Variants) airplanes. This proposed AD refers to the TCCA ADs as the Mandatory Continuing Airworthiness Information, or the MCAI. You may examine the MCAI in the AD docket on the Internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2021-0725.

This proposed AD was prompted by reports of fuel leaks from the electrical connectors and conduits of the engine and APU EFP cartridge/canister, and additional actions have been developed to address the root cause of the fuel leaks. The FAA is proposing this AD to address the potential for a fire hazard as a result of fuel leak from the APU EFP electrical conduit in the hot landing light compartment. See the TCCA ADs for additional background information.

Related Service Information under 1 CFR Part 51

Bombardier has issued the following service information, which describes procedures for repetitive general visual inspections and rectifications for any fuel leak from the engine and APU EFP electrical wiring conduit outlets. These documents are distinct since they apply to different airplane serial numbers.

- Bombardier Service Bulletin 604-28-022, Revision 3, dated August 31, 2018.
- Bombardier Service Bulletin 605-28-010, Revision 3, dated August 31, 2018.
- Bombardier Service Bulletin 650-28-001, Revision 3, dated January 3, 2019.

Bombardier has also issued the following service information, which describes procedures for a detailed visual inspection of the APU for any damage or deformations (e.g., cut wires and a broken harness assembly of the fuel boost pump connector), modifying the engine EFP installation, and repair if necessary. These documents are distinct since they apply to different airplane serial numbers.

- Bombardier Service Bulletin 604-28-024, dated June 16, 2020.
- Bombardier Service Bulletin 650-28-002, dated June 16, 2020.

- Bombardier Service Bulletin 605-28-012, dated June 16, 2020.

This proposed AD would also require Bombardier Service Bulletin 604-28-022, dated October 19, 2015, and Bombardier Service Bulletin 605-28-010, dated October 19, 2015, which the Director of the Federal Register approved for incorporation by reference as of November 30, 2017 (82 FR 49498, October 26, 2017).

This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

FAA's Determination

This product has been approved by the aviation authority of another country, and is approved for operation in the United States. Pursuant to the FAA's bilateral agreement with the State of Design Authority, the FAA has been notified of the unsafe condition described in the MCAI and service information referenced above. The FAA is proposing this AD because the FAA evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop on other products of the same type design.

Proposed Requirements of this NPRM

This proposed AD would retain all of the requirements of AD 2017-22-06 and require accomplishing the actions specified in the service information described previously, except as discussed under "Difference Between this Proposed AD and the MCAI.

Difference Between this Proposed AD and the MCAI

Paragraph E.1. of TCCA AD CF-2016-32R4, for airplane serial numbers 6125 through 6163, requires inspecting for fuel leaks within 600 hours or 12 months, whichever occurs first after "the date of aeroplane entry in-service." Paragraph (i) of this proposed AD, however, would require compliance for those airplanes within 600 flight

hours or 12 months, whichever occurs first after “the effective date of this [FAA] AD.”

Paragraph D.1. of TCCA AD CF-2016-32R4 requires compliance for this action for other serial numbers within 600 flight hours or 12 months after the effective date of the AD.

The FAA has determined that the risk is not higher for serial numbers 6125 through 6163 compared with the other identified airplanes required to accomplish the same inspection.

Therefore, for this AD, the compliance time is the same for all airplanes that are required to inspect for fuel leaks.

Costs of Compliance

The FAA estimates that this proposed AD affects 128 airplanes of U.S. registry.

The FAA estimates the following costs to comply with this proposed AD:

Estimated costs for required actions

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Retained actions from AD 2017-22-06 (for 121 airplanes)	1 work-hour X \$85 per hour = \$85	\$0	\$85 per inspection cycle	\$10,285 per inspection cycle
New proposed actions	20 work-hours X \$85 per hour = \$1,700	\$1,768	\$3,468	\$443,904

The FAA estimates the following costs to do any necessary repair that would be required based on the results of any required actions. The FAA has no way of determining the number of aircraft that might need this repair:

Estimated costs of on-condition actions

Labor cost	Parts cost	Cost per product
5 work-hours X \$85 per hour = \$425	\$8,618	\$9,043

According to the manufacturer, some or all of the costs of this proposed AD may be covered under warranty, thereby reducing the cost impact on affected operators. The

FAA does not control warranty coverage for affected operators. As a result, the FAA has included all known costs in the cost estimate.

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

The FAA has determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

- (1) Is not a "significant regulatory action" under Executive Order 12866,
- (2) Would not affect intrastate aviation in Alaska, and
- (3) Would not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by:

a. Removing Airworthiness Directive (AD) 2017-22-06, Amendment 39-19086 (82 FR 49498, October 26, 2017), and

b. Adding the following new AD:

Bombardier, Inc.: Docket No. FAA-2021-0725; Project Identifier MCAI-2020-01402-T.

(a) Comments Due Date

The FAA must receive comments on this airworthiness directive (AD) by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

This AD replaces AD 2017-22-06, Amendment 39-19086 (82 FR 49498, October 26, 2017) (AD 2017-22-06).

(c) Applicability

This AD applies to Bombardier, Inc., Model CL-600-2B16 (601-3A, 601-3R, and 604 Variants) airplanes, certificated in any category, serial numbers 5301 through 5665 inclusive, 5701 through 5990 inclusive, and 6050 through 6163 inclusive.

(d) Subject

Air Transport Association (ATA) of America Code 28, Fuel.

(e) Reason

This AD was prompted by reports of fuel leaks from the electrical connectors and conduits of the engine and auxiliary power unit (APU) electrical fuel pump (EFP) cartridge/canister, and additional actions have been developed to address the root cause of the fuel leaks. The FAA is issuing this AD to address the potential for a fire hazard as a result of fuel leak from the APU EFP electrical conduit in the hot landing light compartment.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Retained Actions for Certain Airplanes, with Revised Service Information and Method of Compliance Provisions

This paragraph restates the requirements of paragraph (g) of AD 2017-22-06, with revised service information and method of compliance provisions. For Model CL-600-2B16 airplanes having serial numbers 5301 through 5665 inclusive: Within 600 flight hours or 12 months, whichever occurs first after November 30, 2017 (the effective date of AD 2017-22-06), do the inspections specified in paragraphs (g)(1) through (3) of this AD, and do all applicable corrective actions, in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 604-28-022, dated October 19, 2015, or Bombardier Service Bulletin 604-28-022, Revision 3, dated August 31, 2018. Do all applicable corrective actions before further flight. Repeat the inspections at intervals not to exceed 600 flight hours or 12 months, whichever occurs first. As the effective date of this AD, use Bombardier Service Bulletin 604-28-022, Revision 3, dated August 31, 2018, only.

(1) Do a general visual inspection for traces of fuel coming from the right-hand engine boost pump at the location of the belly fairing screw (FS412, BL 0.0).

(2) Do a general visual inspection for traces of fuel coming from the left-hand engine boost pump at the location of the belly fairing screw (FS412, BL 0.0).

(3) Do a general visual inspection for traces of fuel coming from the EFP electrical wiring conduit outlet at the lower body fairing area for engine EFPs and at the right-hand landing light compartment for the APU EFP.

(h) Retained Actions for Certain Other Airplanes, with Revised Service Information and Compliance Method Provisions

This paragraph restates the requirements of paragraph (h) of AD 2017-22-06, with revised service information and compliance method provisions. For Model CL-600-2B16 airplanes having serial numbers 5701 through 5955 inclusive, 5957, 5960 through 5966 inclusive, 5968 through 5971 inclusive, and 5981: Within 600 flight hours or 12 months, whichever occurs first after November 30, 2017 (the effective date of AD 2017-22-06), do the inspections specified in paragraphs (h)(1) through (3) of this AD, and do all applicable related investigative and corrective actions, in accordance with the Accomplishment Instructions in Bombardier Service Bulletin 605-28-010, dated October 19, 2015, or Bombardier Service Bulletin 605-28-010, Revision 3, dated August 31, 2018. Do all applicable related investigative and corrective actions before further flight. Repeat the inspections at intervals not to exceed 600 flight hours or 12 months, whichever occurs first. As of the effective date of this AD, use Bombardier Service Bulletin 605-28-010, Revision 3, dated August 31, 2018, only.

(1) Do a general visual inspection for traces of fuel coming from the right-hand engine boost pump at the location of the belly fairing screw (FS412, BL 0.0).

(2) Do a general visual inspection for traces of fuel coming from the left-hand engine boost pump at the location of the belly fairing screw (FS412, BL 0.0).

(3) Do a general visual inspection of the right-hand landing light compartment for traces of fuel coming from the APU EFP.

(i) New Requirements of this AD: Inspections and Rectifications

For the airplanes identified in figure 1 to paragraph (i) of this AD: At the applicable compliance time specified in figure 1 to paragraph (i) of this AD, do a general visual inspection for any fuel leak from the engine and APU EFP electrical wiring conduit outlets, in accordance with the Accomplishment Instructions of the applicable service information specified in figure 1 to paragraph (i) of this AD. If any fuel leak is found during the general visual inspection, before further flight, correct the fuel leak in accordance with the Accomplishment Instructions of the applicable service information specified in figure 1 to paragraph (i) of this AD. Thereafter, repeat the general visual inspection at intervals not to exceed 600 flight hours or 12 months, whichever occurs first.

Figure 1 to paragraph (i) – Compliance Times and Service Information

Serial numbers–	Compliance Time–	Bombardier Service Bulletin–
5956, 5958, 5959, 5967, 5972 through 5980 inclusive, and 5982 through 5990 inclusive	Within 600 flight hours or 12 months, whichever occurs first after the effective date of this AD	Bombardier Service Bulletin 605-28-010, Revision 3, dated August 31, 2018
6050 through 6163 inclusive	Within 600 flight hours or 12 months, whichever occurs first after the effective date of this AD	Bombardier Service Bulletin 650-28-001, Revision 3, dated January 3, 2019

(j) New Requirements of this AD: Inspection and Modification

Within 60 months after the effective date of this AD: Do a detailed visual inspection of the APU for any damage or deformations, and modify the engine EFP installation, in accordance with the Accomplishment Instructions of the applicable service information specified in figure 2 to paragraph (j) of this AD. If any damage or deformations are found during the detailed visual inspection, before further flight, do the repair in accordance with the Accomplishment Instructions of the applicable service information specified in figure 2 to paragraph (j) of this AD.

Figure 2 to paragraph (j) – Service Information

Serial numbers–	Bombardier Service Bulletin–
5301 through 5665 inclusive	Bombardier Service Bulletin 604-28-024, dated June 16, 2020
5701 through 5990 inclusive	Bombardier Service Bulletin 605-28-012, dated June 16, 2020
6050 through 6163 inclusive	Bombardier Service Bulletin 650-28-002, dated June 16, 2020

(k) No Reporting Requirement

Where service information identified in this AD specifies to submit certain information to the manufacturer, this AD does not include that requirement.

(l) Terminating Actions

Accomplishing the actions required by paragraph (j) of this AD terminates all requirements of this AD.

(m) Credit for Previous Actions

(1) This paragraph provides credit for actions required by paragraph (g) of this AD, if those actions were performed before the effective date of this AD using Bombardier Service Bulletin 604-28-022, dated October 19, 2015, provided that within 4 months or 150 flight hours from the effective date of this AD or within 1 year from the

last inspection, whichever occurs first, the actions accomplished in paragraph (g) are done using Bombardier Service Bulletin 604-28-022, Revision 3, dated August 31, 2018.

(2) This paragraph provides credit for actions required by paragraph (h) of this AD, if those actions were performed before the effective date of this AD using Bombardier Service Bulletin 605-28-010, dated October 19, 2015, provided that within 4 months or 150 flight hours from the effective date of this AD or within 1 year from the last inspection, whichever occurs first, the actions accomplished in paragraph (h) of this AD are done using Bombardier Service Bulletin 605-28-010, Revision 3, dated August 31, 2018.

(3) This paragraph provides credit for actions required by paragraph (i) of this AD, if those actions were performed before the effective date of this AD using the service information in paragraphs (l)(3)(i) through (iii) of this AD, provided that within 1 year from the last inspection, the actions accomplished in paragraph (i) of this AD are done using Bombardier Service Bulletin 650-28-001, Revision 3, dated January 3, 2019. This service information is not incorporated by reference in this AD.

(i) Bombardier Service Bulletin 650-28-001, dated November 3, 2017.

(ii) Bombardier Service Bulletin 650-28-001, Revision 1, dated May 14, 2018.

(iii) Bombardier Service Bulletin 650-28-001, Revision 2, dated August 31, 2018.

(n) Other FAA AD Provisions

(1) *Alternative Methods of Compliance (AMOCs)*: The Manager, New York ACO Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or responsible Flight Standards Office, as appropriate. If sending information directly to the manager of the certification office, send it to ATTN: Program Manager, Continuing Operational Safety, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7300; fax

516-794-5531. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the responsible Flight Standards Office.

(2) *Contacting the Manufacturer:* For any requirement in this AD to obtain instructions from a manufacturer, the instructions must be accomplished using a method approved by the Manager, New York ACO Branch, FAA; or Transport Canada Civil Aviation (TCCA); or Bombardier, Inc.'s TCCA Design Approval Organization (DAO). If approved by the DAO, the approval must include the DAO-authorized signature.

(o) Related Information

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) TCCA AD CF-2016-32R4, dated October 13, 2020; and TCCA AD CF-2020-38, dated October 13, 2020; for related information. This MCAI may be found in the AD docket on the Internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2021-0725.

(2) For more information about this AD, contact Steven Dzierzynski, Aerospace Engineer, Avionics and Electrical Systems Section, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7367; fax 516-794-5531; email 9-avs-nyaco-cos@faa.gov.

(3) For service information identified in this AD, contact Bombardier, Inc., 200 Côte-Vertu Road West, Dorval, Québec H4S 2A3, Canada; North America toll-free telephone 1-866-538-1247 or direct-dial telephone 1-514-855-2999; email ac.yul@aero.bombardier.com; Internet <https://www.bombardier.com>. You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

Issued on September 1, 2021.

Gaetano A. Sciortino, Deputy Director for Strategic Initiatives,
Compliance & Airworthiness Division,
Aircraft Certification Service.

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